INDEX VOLUME 9 1989

acid deposition, 169
Adedokun, J.A., *Surface Humidity and Precipitable Water Vapour Linkage Over West and Central Africa: Further Clarification and Evaluation of Existing Models*, 425
Adedoyin, J.A., *Global-scale Sea-surface Temperature Anomalies and Rainfall Characteristics in Northern Nigeria*, 133
Africa, Central, 425, 433
Africa, East, 145
Africa, Southern, 69
Africa, West, 77, 133, 141, 253, 371, 425
Agnew, C.T., *Sahel Drought: Meteorological or Agricultural?*, 371
agroclimatic classification, 271
air masses, 527
albedo, 203
America, North, 91
Ananthakrishnan, R. and M.K. Soman, *Onset Dates of the South-West Monsoon Over Kerala for the Period 1870-1900*, 321
Ananthakrishnan, R. and M.K. Soman, *Response to a letter from H.H. Lamb*, 323
Ananthakrishnan, R. and M.K. Soman, *Statistical Distribution of Daily Rainfall and its Association with the Coefficient of Variation of Rainfall Series*, 485
Andes, 55
Argentina, 55
Asia, East, 407
Atlantic, North, 101
atmospheric circulation, 169, 309
Australia, 3

Barker, H.W. and J.A. Davies, *Multiple Reflections Across a Linear Discontinuity in Surface Albedo*, 203
Barthelmie, R.L., see Farmer, G., T.D. Davies, R.L. Barthelmie, P.M. Kelly and P. Brimblecombe, 181
Berndtsson, R., *Topographical and Coastal Influence on Spatial Precipitation Patterns in Tunisia*, 357
Bigg, G.R., see Cooper, N.S., K.D.B. Whysall and G.R. Bigg, 221
biogeophysical feedback, 83
bivariate normal distribution, 527
Briffa, K.R., see Norton, D.A., K.F. Briffa and M.J. Salinger, 633
Brimblecombe, P., see Farmer, G., T.D. Davies, R.L. Barthelmie, P.M. Kelly and P. Brimblecombe, 181
Brisbane, 3

Chu, Pao-Shin, *Hawaiian Drought and the Southern Oscillation*, 619
circulation patterns, 221, 601
climate departure index, 383
climatic change, 33, 221, 253, 323, 633
climatic change, difficulties due to errors in data, 33
climatic cycles, 91, 253
climatic maps, recent, 106, 216, 326, 436, 545, 646
cloud cover, Australo-Indonesia region, 395
cloudbands, 441
cluster analysis, 3, 191, 271, 527, 569
coefficient of variation, 485
Cooper, N.S., K.D.B. Whysall and G.R. Bigg, *Recent Decadal Climate Variations in the Tropical Pacific*, 221
correlations, cross, 357
Croft, P.J. and M.D. Shulman, *A Five-Year Radar Climatology of Convective Precipitation for New Jersey*, 581
Currie, R.G. and D.P. O'Brien, *Morphology of Bistable 180° Phase Switches in 18.6-Year Induced Rainfall Over the North-Eastern United States of America*, 501
Currie, R.G., *Comments on 'Power Spectra and Coherence of Drought in the Interior Plains by E.O. Oladipo'*, 91
cyclones, 419

data inhomogeneties, 33
Davies, J.A., see Barker, H.W. and J.A. Davies, 203
Davies, T.D., see Farmer, G., T.D. Davies, R.L. Barthelmie, P.M. Kelly and P. Brimblecombe, 181
Davis, J.M., see Epperson, D.L., J.M. Davis, G.F. Watson and J.F. Monahan, 527
dendroclimatology, 635
diurnal variations, 331
Dix, M., see Simmonds, I., M. Dix, P. Rayner, and G. Trigg, 111
drought, 77, 91, 141, 371, 621
drought, Africa, 371
drought, agroclimatic, 371
drought, Hawaii, 621
drought, United States, 91
Druyan, L.M., *Advances in the Study of Sub-Saharan Drought*, 77
dust, 169

Easterling, D.R., *Regionalization of Thunderstorm Rainfall in the Contiguous United States*, 567
El Nino, 33, 62, 81, 111, 133, 145, 221, 243, 465, 619, 633
energy budget, 191
England and Wales, 271
Epperson, D.L., J.M. Davis, G.F. Watson and J.F. Monahan, *Bivariate Normal Classification of North American Air Masses Using the NORMIX Program*, 527
erosion, wind, 179
evapotranspiration, 371

extremes, hydrological, 55

Farmer, G., T.D. Davies, R.L. Barthelmie, P.M. Kelly and P. Brimblecombe, *The Control by Atmospheric Pressure Patterns of Sulphate Concentrations in Precipitation at Eskdalemuir, Scotland*, 181
fog, 69
forcing, 111, 441
freeze dates, 383
freezing temperatures, 383

general circulation models, 111,331
general circulation patterns, 55, 221
Glynn, S., Review of *The Bunker Climate Atlas of the North Atlantic Ocean, Volume 1: Observations*, 101
Gordon, H.B., see Hunt, B.G. and H.B. Gordon, 331
Greece, 309
greenhouse effect, 103
Gregory,S., *Macro-Regional Definition and Characterisitics of Indian Summer Monsoon Rainfall, 1871·1985*, 465
growing seasons, 371, 383

Hadley cells, 111, 141
Harmattan, 429
Henderson, K.G., see Yarnal, B. and Henderson, K.G., 551
human effects on climate, 103, 169
humidity, 425
Hunt, B.G. and H.B. Gordon, *Diurnally Varying Regional Climatic Simulations*, 331

India, 321, 323, 465, 485
ITCZ, 145, 253, 425

Jager, J., Review of *Der Treibhaus-Effect: Der Mensch Andert das Klima (The Greenhouse Effect: Humans are Changing the Climate)*, 103
Jauregui, E., *The Dust Storms of Mexico City*, 169

Kayano, M.T., V.B.Rao, and A.D. Moura, *The Walker Circulation and Atmospheric Water Vapour Characteristics Over the Pacific for Two Contrasting Years*, 243
Kelly, P.M., see Farmer, G., T.D. Davies, R.L. Barthelmie, P.M. Kelly and P. Brimblecombe, 181
Klink, K. and C.J. Wilmott, *Principal Components of the Surface Wind Field in the United States: A Comparision of Analyses Based Upon Wind Velocity, Direction, and Speed*, 293
Kuhnel, I., *Spatial and Temporal Variations in Australo-Indonesian Region Cloudiness*, 395
Kuhnel, I., *Tropical-Extratropical Cloudband Climatology Based on Satellite Data*, 441

Lamb, H.H., *Letter Re: The Onset of the South-West Monsoon Over Kerala*, 323
luni-solar cycles, 501

Matsumoto, J., *Heavy Rainfalls Over East Asia*, 407
McIntyre, N., Review of *Remote Sensing Applications in Meteorology and Climatology*, 101
Mexico, 169
millet, 371
Minetti, J.L. and E.M. Sierra, *The Influence of General Circulation Patterns on Humid and Dry Years in the Cuyo Andean Region of Argentina*, 55
mixing ratio, 527
Monahan, J.F., see Epperson, D.L., J.M. Davis, G.F.Watson and J.F. Monahan, 527
monsoon, onset in India, 321, 323
Moura, A.D., see Kayano, M.T., V.B.Rao, and A.D. Moura, 243

Namibia, 69
New Jersey, 583
New Zealand, 635
Niger, 371
Nigeria, 141
Norton, D.A., K.F. Briffa and M.J. Salinger, *Reconstruction of New Zealand Summer Temperatures to 1730 AD Using Dendroclimatic Techniques*, 633

O'Brien, D.P., see Currie, R.G. and O'Brien, D.P., 501
Ogallo, L.J., *The Spatial and Temporal Patterns of East African Seasonal Rainfall Derived from Principal Component Analysis*, 145
Olaniran, O.J. and G.N.Sumner, *A Study of Climatic Variability in Nigeria Based on the Onset, Retreat, and Length of the Rainy Season*, 253
Oliver, J. and P.L. Stockton, *The Influence of Upwelling Extent Upon Fog Incidence at Lüderitz, Southern Africa*, 69
optical depth, 203
oscillations, 40-50 day, 395

Pacific, 221, 243
paeleoclimates, 633
Perry, A.H., see White, E.J. and A.H. Perry, 271
polar lows, 551
pollution, 169, 181
potential temperature, 527
precipitable water, 425
precipitation, climatic changes in India, 321, 323, 465
precipitation, convective, 581
precipitation, Czechoslovakia, 102
precipitation, determination of homogeneous regions, 465, 567
Precipitation, East Africa, 145
precipitation, Hawaii, 619
precipitation, heavy, 407
precipitation, Indian monsoon, 321, 323, 465, 485
precipitation, intensity, 407
precipitation, Kenya, 145
precipitation, links with Southern Oscillation, 601, 619
precipitation, Nigeria, 133, 253
precipitation, seasonal forecasting, 619
precipitation, snowfall, 309
precipitation, Sri Lanka, 601

precipitation, statistical distributions, 485, 567
precipitation, tropical anomalies, 111, 133, 145, 465
precipitation, Tunisia, 357
precipitation, United States, 567, 581, 619
precipitation, variability, 102, 465
precipitation, West Africa, 77, 133, 253, 371, 425
pressure anomalies, 55, 221, 441
principal component analysis, 3, 145, 191, 271, 293, 395, 465

radar, 581
radiation climatology, 203
radiation, multiple reflections, 203
rainy season, length, 253
rainy season, onset, 253, 321, 323
Rao,V.B., see Kayano, M.T., V.B.Rao, and A.D. Moura, 243
Ratcliffe, R.A.S., *Recent Climatic Maps*, 106, 216, 326, 436, 545, 646
Rayner, P., see Simmonds, I., M. Dix, P. Rayner, and G. Trigg, 111
remote sensing, 101
Reviews:
The Bunker Climate Atlas of the North Atlantic Ocean, Volume 1: Observations, H-J. Isemer and L. Hasse, 101
Remote Sensing Applications in Meteorology and Climatology, R.A. Vaughan (ed.), 101
Variations of Atmospheric Precipitation in the C.S.S.R. With Respect To Precipitation Changes in the European Region, R.Brazdil, 102
Der Treibhaus-Effect: Der Mensch Andert das Klima (The Greehouse Effect: Humans are Changing the Climate), C-D. Schönweise and B. Dieckmann, 103

Sahel, 77, 141, 253, 371
Sahsamanoglou, H.S., *Summer Snowfalls Over the Mount Olympus Area*, 309
Salinger, M.J., see Norton, D.A., K.F. Briffa and M.J. Salinger, 633
satellite data, 395, 441, 551
Scotland, 169
sea surface temperatures, 82, 111, 133, 221, 331, 465, 619
seasonal forecasting, 619
Shawyer, M.S., Review of *Variations of Atmospheric Precipitation in the C.S.S.R. With Respect To Precipitation Changes in the European Region*, 102
Shulman, M.D., see Croft, P.J. and Shulman, M.D., 581
Sierra, E.M., see Minetti, J.L. and E.M. Sierra, 55

Simmonds, I., M. Dix, P. Rayner, and G. Trigg, *Local and Remote Response to Zonally Uniform Sea-surface Temperature in a July General Circulation Model*, 111
Smithson. P.A., *Editorial*, 1
soil moisture, 331, 371
Soman, M.K., see Ananthakrishnan, R. and M.K. Soman, 321
Soman, M.K., see Ananthakrishnan, R. and M.K. Soman, 485
South America, 55
Southern Oscillation, 33, 62, 81, 111, 133, 145, 221, 243, 441, 465, 619, 633
spectral analysis, 91, 253, 501
Sri Lanka, 601
statistical techniques, 3, 91, 145, 485
Stockton, P.L., see Oliver, J. and P.L. Stockton, 69
Stone, R.C., *Weather Types at Brisbane, Queensland: An Example of the Use of Principal Components and Cluster Analysis*, 3
Suckling, P.W., *Application of a Climate Departure Index to the Study of Freeze Dates and Growing Season Length in the South -Eastern United States*, 383
sulphate, 169
Sumner, G.N., see Olaniran, O.J. and G.N.Sumner, 253
Suppiah, R., *Relationships Between the Southern Oscillation and the Rainfall of Sri Lanka*, 601
synoptic classification, 3, 551

teleconnections, 441, 619
temperature anomalies, 221
temperature reconstruction, 633
temperature, variability, 633
thunderstorms, 567
Todhunter, P.E., *An Approach to the Variability of Urban Surface Energy Budgets Under Stratified Synoptic Weather Types*, 191
tree rings, 633
Trigg, G., see Simmonds, I., M. Dix, P. Rayner, and G. Trigg, 111
tropical cyclones, 419
tropical Pacific, 465
Tunisia, 357
United States, 191, 293, 383, 501, 567

upwelling, 69
urban climatology, 191

visibilty, 169

Walker circulation, 111, 243
water balance models, 371
water vapour concentrations, 243
Watson, G.F., see Epperson, D.L., J.M. Davis, G.F.Watson and J.F. Monahan, 527
weather types, 3, 191, 527
White, E.J. and A.H. Perry, *Classification of England and Wales Based on Agroclimatic Data*, 271
Whysall, K.D.B., see Cooper, N.S., K.D.B. Whysall and G.R. Bigg, 221
Wilmott, C.J., see Klink, K. and C.J. Wilmott, 293
wind erosion, 179
winds,surface, 293
Wright, P.B., *Homogenized Long-period Southern Oscillation Indices*, 33

Yarnal, B. and Henderson, K.G., *A Satellite-Derived Climatology of Polar- Low Evolution in the North Pacific*, 551